

L1 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2002 ACS
AN 1979:520022 CAPLUS
DN 91:120022
TI Properties of intracellular **enzyme** extracts from selected
bacteria strains of milk fermentation
AU Rymaszewski, Jerzy
CS Inst. Inz. Biotechnol. Zywn., Akad. Roln.-Tech., Olsztyn, Pol.
SO Zesz. Nauk. Akad. Roln.-Tech. Olsztynie, Technol. Zywn. (1978), (13),
3-48
CODEN: ZNTZAS
DT Journal
LA Polish
AB The effect of the culture compn. and **spray-drying** of
concd. **biomass** on **enzyme** exts. of Streptococcus lactis
192, S. diacetylactis 265, S. cremoris 333, and Lactobacillus casei
"Paris" were investigated. The exts. were sepd. on Sephadex G-100 and
DEAE-Sephadex A-50. The mol. wt. of intracellular protein and the
proteolytic and fermn. activity of the exts. were detd. They were not
affected by the culture compn. and pH.

L1 ANSWER 5 OF 5 CAPLUS COPYRIGHT 200

L1 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS
 AN 1979:85312 CAPLUS
 DN 90:85312
 TI Preservation of live microorganisms and enzymic preparations
 IN Kornacki, Kazimierz; Rymaszewski, Jerzy; Poznanski, Stefan; Habaj,
 Bronislaw; Smietana, Zbigniew
 PA Akademia Rolniczo-Techniczna, Pol.
 SO Pol., 2 pp.
 CODEN: POXXA7
 DT Patent
 LA Polish
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| PI | PL 91549 | P | 19770228 | PL 1974-173098 | 19740729 |
| AB | <p>Live microorganisms, esp. bacteria, yeast, and molds and enzymic preps. are preserved by spray-drying with sterile air having an initial temp. <90.degree. and humidity <20%. Thus, after the logarithmic growth phase of a microbial culture had ended and the bacterial cells were concd. by centrifuging and dispersed in a 10-25% carrier soln. (e.g. milk powder), the cell suspension was cooled to <15.degree., transferred to a spray tower, and dried with sterile dry air for a few s. Before passing over to the tower the filtered air is dehydrated with absorbents to 10-15% moisture content and heated to 80-90.degree.. The bacterial biomass, atomized to a powder contg. 3.5% H2O and with a final temp. of 30-40.degree. is packed into sterile hermetically closed containers and preserved. Silica gel, CaO, H2SO4, etc. are used as dehydration agents.</p> | | | | |

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L6 ANSWER 37 OF 42 CAPLUS COPYRIGHT 2002 ACS
 AN 1970:465203 CAPLUS
 DN 73:65203
 TI Fermented food compositions
 IN Akinrele, Isaac A.
 PA Federal Institute of Industrial Research
 SO Brit., 4 pp.
 CODEN: BRXXAA
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------|------|----------|-----------------|----------|
| PI | GB 1193135 | | 19700528 | GB | 19671127 |

AB A food compn. is prepd. by (A) steeping a starchy material in water until the microflora is dominated by lactobacilli, wet milling in the steep water or other water to form a slurry, (B) soaking a dried and dehulled leguminous material in water and wet-milling to form a leguminous slurry, there being added, at least in the case where the steep water is not employed in wet-milling of A, lactobacilli and optionally one or more of the organisms Candida mycoderma, Aerobacter species and Saccharomyces species, and (C) mixing A and B and allowing them to ferment at 18-45.degree., then dewatering or drying. Thus, maize grains were washed, then steeped in twice their wt. of water for 24 hr at 30-32.degree.. The steeped maize was milled in its own water until 75% extn. through a 72 mesh was obtained. Soybeans were cleaned and air dried at 90.degree. to a moisture content of 10%, dehulled, then soaked in water for 1-2 hr and wet-milled as above. The maize and soy slurries were mixed in proportion 70:30 resp., allowed to ferment at 30-32.degree. until the acidity was such that 5 ml of clear liquor was neutralized by 35 ml 0.01N NaOH. Na2S2O5 was added to give a concn. of 200 ppm dissolved SO2 and to destroy the urease and antitryptic factors by soy beans. Mineral and vitamin additives were mixed into the **fermented** slurry and then **spray** or flash **dried** to a moisture content of 3%. The food compn. may then be flavored, colored, graded, and packed and is high in nutritional value with no beany flavor.

L6 ANSWER 38 OF 42 CAPLUS COPYRIGHT 2002 ACS

L6 ANSWER 31 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1975:123287 CAPLUS
DN 82:123287
TI Protein production from acid whey via fermentation
AU Bernstein, Sheldon; Everson, Thomas C.
CS Amber Lab. Div., Milbrew, Inc., Juneau, Wis., USA
SO U. S. N. T. I. S., PB Rep. (1974), No. 235504/8GA, 89 pp. Avail.: GPO,
1.25 dollars
From: Govt. Rep. Announce. (U. S.) 1974, 74(23), 117
CODEN: XPBRCA
DT Report
LA English
AB Operation of a demonstration pilot plant over extended periods of time
has
shown that yeast may be grown on an acid whey or sweet whey medium in a
continuous, deep tank aerated fermentor. Variations in fermn.
conditions,
strain selection, and medium compn. produced cell concns. of several
billion cells per ml. By a process of evaporation and **spray**
drying the whole **fermented** whey mass and the utilization
of the evaporator condensate to dil. incoming condensed whey, a high
grade, nontoxic, protein feed material may be produced without any
effluent streams. Amino acid analyses and protein efficiency ratios are
presented for this feed material.

L6 ANSWER 21 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1986:441435 CAPLUS
DN 105:41435
TI Nutritional and therapeutic benefits of a blended-spray dried Acidophilus preparation
AU Prajapati, J. B.; Shah, R. K.; Dave, J. M.
CS Sheth M.C. Coll. Dairy Sci., Gujarat Agric. Univ., Anand, 388110, India
SO Cult. Dairy Prod. J. (1986), 21(2), 16-17, 20-1
CODEN: CDPJDE; ISSN: 0045-9259
DT Journal
LA English
AB A new acidophilus prepn. was made by **spray-drying**

acidophilus milk **fermented** with Lactobacillus acidophilus LB1H3 after blending with banana, tomato juice conc., and sugar. The final product contained about 87 million viable cells/g. The product was compared with a control made in the similar manner contg. skim milk in place of acidophilus milk in the test prepn. The products were analyzed for fat, protein, moisture, ash, carbohydrates, titratable acidity, and coliforms. Both preps. were organoleptically acceptable. Protein quality of the powders was assessed by bioassay, which showed higher protein quality values for the products as compared to std. casein. The test powder had more riboflavin [83-88-5] and folic acid [59-30-3] than the control powder. Feeding the product to human subjects increased lactobacilli and suppressed coliforms in fecal samples, indicating the successful implantation of L. acidophilus LB1H3.

134:294659

TI Preparation and uses of **spray dried enzyme**
products containing **biomass**
IN Topp-Jorgensen, Jorgen; Jacobsen, Carsten; Hansen, Kim Uhre; Jorgensen,
Anders; Oftelund, Dan; Bach, Poul; Sondergaard, Gustav Borup
PA Novozymes A/S, Den.
SO PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--------|--|--|----------|-----------------|----------|
| PI | WO 2001025411 | A1 | 20010412 | WO 2000-DK535 | 20000929 |
| | W: | | | | |
| | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, | | | | |
| | CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, | | | | |
| | HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, | | | | |
| | LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, | | | | |
| | SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, | | | | |
| | ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, | | | | |
| | DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, | | | | |
| | CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| PRAI | DK 1999-1415 | A | 19991001 | | |
| | DK 2000-251 | A | 20000217 | | |
| AB | The invention relates to a particle comprising an enzyme and a biomass , to a process for prepg. a particle comprising spray drying an enzyme and biomass contg. fermn. broth starting material, to obtain a solid particle comprising an enzyme and a biomass and to a process for prepg. an enzyme contg. particle comprising spray drying an aq. enzyme contg. liq. starting material to obtain a spray dried first enzyme contg. particle and subsequently subjecting the first dry particle to a process selected from granulation and coating and combinations thereof to obtain | | | | |
| a | second dry enzyme contg. particle. The present invention provides simple and cost effective processes for producing dry enzyme particles having good properties. | | | | |
| RE.CNT | 6 | THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD | | | |
| | | ALL CITATIONS AVAILABLE | | | |

L6 ANSWER 11 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
 AN 1999:31558 BIOSIS
 DN PREV199900031558
 TI Spray-drying of different lactic acid species.
 AU Desmons, S. (1); Zgoulli, S.; Evrard, P. (1); Roblain, D. (1); Destain,
 J.
 (1); Thonart, P. (1)
 CS (1) Bio-Industries, FUSAGx, Passage des Deportes 2, 5030 Gembloux Belgium
 SO Mededelingen Faculteit Landbouwkundige en Toegepaste Biologische
 Wetenschappen Universiteit Gent, (1998) Vol. 63, No. 4A, pp. 1253-1261.
 DT Article
 LA English
 AB Several factors influence survival rates of lactic starters produced by
spray-drying: the **fermentation** process, the
drying step and storage conditions. The determination of the
 optimal medium composition, pH, temperature but also the use of a
 fed-batch technique during the culturing of cells leads to a maximal
 final
 cell concentration. The survival rate after spray-drying can be
 correlated
 with the outlet air temperature. The use of protectants and particularly
 microencapsulation effectively protects the cells against drying
 damages.
 Storage temperature influences the starters stability. The accelerated
 storage test appears to be an interesting predicting and comparing tool
 to
 study the storage stability of different starters.

L3 ANSWER 208 OF 228 CAPLUS COPYRIGHT 2002 ACS
AN 1972:32816 CAPLUS
DN 76:32816
TI Thermal stability of **enzymes** of a cultured liquid of Bacillus
mesentericus during **spray drying**
AU Vaganova, M. S.; Kalunyants, K. A.; Chugunova, T. V.
CS USSR
SO Ferment. Spirt. Prom. (1971), 37(7), 18-20
CODEN: FSPMAM
DT Journal
LA Russian
AB Culture liquors of B. mesentericus contg. 1.5-3.5% dry matter, and also
preliminary concs. with 10, 20, 30, and 40% dry matter, were spray-dried
in a drier; the inlet temps. of the drier could be varied between 100 and
250, and the outlet temps. could be varied between 50 and 120.degree..
The expts. were repeated after addn. of Ca²⁺, Mg²⁺ and other elements in
various amts. CaCl₂ should be added to the solns. in amts. of 2-3%,
since
greater amts. had deleterious effects. If the inlet temp. did not
surpass
140 and the outlet temp. did not surpass 70.degree., then the losses of
the **enzymic** activity during **spray drying**
rarely surpassed 10%.